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OBJECTIVES: To provide an overview on published decision-analytic models evaluating treatment strategies for multiple myeloma (MM) focusing on the cost-effectiveness results. **METHODS:** A systematic literature search was performed in the electronic databases Pubmed, NHS EED and the Tufts CEA Registry to identify studies evaluating MM treatment strategies using mathematical decision-analytic models. To meet the inclusion criteria, models were required to compare different treatment strategies, to be published as full text articles in English, and comprise relevant clinical health outcomes over a defined time horizon and population. We used evidence tables to summarize methodological characteristics and economic results. For comparability, all economic results were transferred into 2012 US Dollar. We used Purchasing Power Parity to convert the currency into US Dollar of the same year. For converting US Dollar from step one into US Dollars 2012, we used Consumer Price Index rates for the relevant year. **RESULTS:** We found eleven decision-analytic modeling studies. Economic evaluations were included in all studies. Eight studies reported cost-utility results. The modeling approaches applied included a decision tree model, Markov cohort model, discrete event simulations, partitioned survival analyses and area under the curve models. Time horizons ranged from seven years to lifetime. Half of the models chose the perspective of the health care system, while other perspectives were societal, third party payer and government payer. Among others, two studies reported cost-effectiveness of autologous transplantation vs. standard-dose melphalan with an ICER of $31,263 /life-year gained (LYG) and $36,778/LYG. One study reported that bortezomib vs. lenalidomide plus dexamethasone is cost saving, while another comparable study reported an ICUR for lenalidomide plus dexamethasone vs. bortezomib of $22,301/QALY. **CONCLUSIONS:** We identified several well-designed cost-effectiveness/cost-utility models using a broad variety of different modeling approaches. Results of most of the studies were not comparable due to different treatment strategies, target population and settings.

PCN107

ECONOMIC EVIDENCE OF SURGICAL PROCEDURES IN CANCER: A SYSTEMATIC LITERATURE REVIEW

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OBJECTIVES: To examine the empirical and methodological cost-effectiveness evidence of surgical interventions for breast, colorectal, and prostate cancer. **METHODS:** Systematic searches of seven databases including MEDLINE, EMBASE, CDSR,HTA, DARE, EconLit and NHSEED, research registers, the National Institute of Health and Care Excellence (NICE) website and conference proceedings was conducted in April 2012. Studies were included if they evaluated the cost-effectiveness of a surgical procedure in either breast, colorectal or prostate cancer and reported cost per quality adjusted life-year or cost per life-year results. The quality of the studies included was assessed in terms of meeting essential, preferred, and UK specific requirements for economic evaluations. **RESULTS:** The 17 (breast=3,colorectal=7,prostate=7) studies which satisfied the inclusion criteria covered a broad range of settings with 9 set in European and 8 in non-European locations. Just a third (11/17) was published within the last 10 years. In terms of the essential quality criteria; the populations, interventions and comparators were generally well defined. However, very few studies were informed by the results of literature reviews or synthesised clinical evidence. Although the interventions had potential differential effects on recurrence and mortality rates, some studies used relatively short time horizons. Although univariate sensitivity analyses were reported in all studies, less than a third characterised all uncertainty with a probabilistic sensitivity analysis. While a third of studies incorporated patients' health-related quality of life data, only 4 of the 17 studies used social tariff values. **CONCLUSIONS:** There is very little recent robust evidence describing the cost-effectiveness of surgical interventions in these indications. Many of the more recent publications did not satisfy the essential methods requirements, such as using synthesising clinical evidence informed by a systematic literature review. Given the ratio of potential benefit and harm associated with surgery in cancer, there is an urgent need to conduct additional robust economic evaluations in this area.

PCN108

ABIRATERONE ACETATE VERSUS ENZALUTAMIDE FOR METASTATIC CASTRATION-RESISTANT PROSTATE CANCER POST CHEMOTHERAPY: COST EFFECTIVENESS ANALYSIS

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OBJECTIVES: With approvals of abiraterone acetate (AA) and enzalutamide (ENZA) in the past 2 years, the treatment landscape has shifted dramatically for metastatic castration-resistant prostate cancer (mCRPC) patients who failed docetaxel-based chemotherapy. There is increasing interest in the relative cost-effectiveness of these therapies. The objective of this study was to assess the cost-effectiveness of AA versus ENZA among individuals with mCRPC post chemotherapy from a payer perspective. **METHODS:** A survival-based Markov cohort model consisting of 3 health states, progression-free, progressed, and dead, was developed to project over 10 year period. Progression between states was determined by overall survival (OS) and radiographic progression free survival (rPFS). An indirect treatment comparison was conducted to determine the relative efficacy of AA and ENZA (data reported separately). Utilities were mapped from FACT-P to EQ-5D based on a review of the literature. Drug acquisition costs in the US were used since ENZA was approved only in the US at the time of analysis. Costs of scheduled and unscheduled follow-up visits were obtained from the Centers for Medicare Services Drug Payment Table and Physician Fee Schedule and represented in 2013 US dollars. Average wholesale prices for a 30-day supply of AA and ENZA were $7,674 and $8,940, respectively. One-way sensitivity analyses were performed against all probability, utility, and cost values incorporated into this cost-effectiveness model. **RESULTS:** In this analysis, AA provides substantial saving with $13,322 per patient versus ENZA. The main drivers of the model are drug costs, health utility values, and efficacy (OS and rPFS). The robustness of the results was supported by sensitivity analyses. **CONCLUSIONS:** Given similar OS benefits, AA is cost saving compared with ENZA for the treatment of patients with mCPRC post-docetaxel based on US data.

PCN109

COMPARATIVE STUDY OF THE COST-EFFECTIVENESS OF TRASTUZUMAB IN THE TREATMENT OF BREAST CANCER IN DIFFERENT COUNTRIES

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OBJECTIVES: Pharmacoeconomic evaluations are more critical in developing countries in which economic effects of new and expensive therapies have significant impact on patients, insurance companies and the health systems. Since cost-effectiveness studies are too costly and time consuming, in these countries new medications are often being used in daily practice before being well documented as cost-effective interventions. This would force health organizations to perform comparative studies as alternatives to cost-effectiveness analysis. Trastuzumab, an anti-cancer monoclonal antibody which was approved by FDA in 1998, is an expensive medicine introduced to the Iranian pharmaceutical market since 2003, with an annual usage cost of 308,352,730,640 Rials ($ US 25,000,000) in 2010. **METHODS:** A systematic review on electronic medical databases including the Cochrane, CRD, EMBASE, HEED, MEDLINE, and PubMed, covering the years 2000 to 2009, was performed using relevant key words to extract publications investigating cost-effectiveness and efficacy of trastuzumab in breast cancer treatment. The Incremental Cost-Effectiveness Ratios (ICERs) were compared with a criterion introduced by WHO. **RESULTS:** The reported ICERs were between $90,118/QALY to $217,264/QALY and $13,361/QALY to $65,250/QALY in metastatic and adjuvant breast cancer therapy, respectively. The metastatic ICERs were 8 to 20 folds of the GDP per Capita in Iran whereas the adjuvant phase ICERs were 1.2 to 6 folds of it. Sensitivity analysis showed the results are more sensitive to discount rate, drug regimen cost, duration of survival benefits, as well as the risk of relapse and metastasis. **CONCLUSIONS:** Trastuzumab therapy in metastatic breast cancer cannot be cost effective in Iran, however as adjuvant therapy it is still a challenging issue. Unlimited access to this medicine would not be rational and recommendations with an approach to optimize its usage, e.g. administration in younger patients with poor prognosis and higher risk of relapse or using clean rooms to reduce drug wasting, are strongly advised.

PCN110

THE COST-EFFECTIVENESS OF BENDAMUSTINE-RITUXIMAB VERSUS FLUDARABINE-RITUXIMAB FOR PATIENTS WITH INDOLENT NON-HODGKIN'S LYMPHOMA (INHL) WHO HAVE PROGRESSED FOLLOWING TREATMENT WITH RITUXIMAB OR A RITUXIMAB-CONTAINING REGIMEN IN MEXICO

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OBJECTIVES: To determine the cost-effectiveness of bendamustine-rituximab (Ben-R) versus fludarabine-rituximab (Fdb-R) in patients with iNHL who have progressed following treatment with rituximab or a rituximab-containing regimen in Mexico. **METHODS:** An economic model was constructed from the Mexican public payer perspective, with a 35-year (lifetime) horizon and a discount rate of 5%. The model included three health states, progression-free (PF), progressive disease (PD), and death, which were associated with utility weights of 0.81, 0.62 and 0, respectively. Clinical inputs (response rates, Kaplan-Meier curves, hazard ratios (HRs) and adverse event rates) were from the Stil NHL 2-2003 study. Resource use data were from interviews with Mexican hematologists treating iNHL patients. Unit costs were obtained from Mexican Social Security Institute (IMSS) and were expressed as 2013 Mexican Pesos. Univariate and probabilistic sensitivity analyses were conducted to determine the key drivers of cost-effectiveness, and uncertainty around the results, respectively. **RESULTS:** Total cost of Ben-R was $1,726,828 and total cost of Fdb-R was $1,640,024. Ben-R patients accrued more LYs (5.82 vs. 4.73), QALYs (4.22 vs. 3.29), and PF LYs (3.37 vs. 1.96) compared to Fdb-R patients. The ICERs were $79,890 (cost per LY), $92,788 (cost per QALY) and $61,486 (cost per PF LY). Univariate sensitivity analysis revealed that the ICER per LY was most sensitive to the PF survival (PFS) and overall survival (OS) HRs for Ben-R vs Fdb-R and the use of bone marrow transplants in the PD state. Probabilistic sensitivity analysis with 1,000 iterations estimated that Ben-R will be cost effective over 90% of the time at a willingness-to-pay threshold of $125,085. **CONCLUSIONS:** At a willingness-to-pay of $125,085 (GDP per capita of Mexico) Ben-R is cost effective versus Fdb-R.

PCN111

A COST-EFFECTIVENESS ANALYSES OF USING SUNITINIB (SU) IN FIRST LINE OF METASTATIC RENAL CANCER IN ROMANIAN JURISDICTION

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OBJECTIVES: In Romania the estimated incidence of metastatic renal cancer (mRCC) is about 1500 cases; less than 400 patients receive full reimbursement for